



FLAGGING INSPECTION

Adapted from materials developed and supplied
by the Federal Highway Administration and The
National Safety Council



*Highway Traffic Safety
Training Center*



*National
Safety
Council*



Introduction

Flagger's Qualifications

Appearance

Flagger's Equipment



Class Objective

- **To review the primary responsibilities of the flagger**
- **To inform the persons with responsibility for flagging traffic of the correct manner in which the work is to be done.**
- **To develop a set of consistent standards for the inspection of one-way traffic control systems.**



Why Is This Important ?

In 1995 there were:

- 771 fatalities in work zones nationwide**
- 62 fatalities on California State**

Highway work zones

SAFETY



IS

#1

You Control Their Safety



Class Content



- **Qualifications, Appearance and Equipment**
- **Work Zone & Flagger Station Layout**
- **Standard Signals to Direct Traffic**
- **Methods of One-Way Traffic Control**
 - **Single Flagger Procedures**
- **Emergency Vehicle Procedures**
- **Handling Emergency Situations**
- **Dealing with Hostile Drivers**
- **Emergency Flagging Procedures**
- **Demonstrate Proper Flagging Operations**



Practical Exercise

Demonstrate Good Flagging Procedures

- Using correct paddle and hand signals**
- Taking the proper position in the traffic lane**



Characteristics

**What kind of person
makes a good flagger ?**



Characteristics to look for:

- **Mentally Alert**
- **Good Physical Condition**
 - Vision equal to DMV standards
 - Keen hearing
 - Able to stand for long periods of time
- **Courteous and Knowledgeable**
- **Authoritative**



Do Not

- **Mingle With the Crew**
- **Leave Your Post**
- **Turn Your Back**
- **Sit Down On The Job**



The Well Dressed Flagger

- For daytime an orange or strong yellow-green vest or shirt.
- At night safety clothing with reflective stripes. White clothing is required for Caltrans employees and strongly recommended for others.
- Clothing that affords protection from the environment (no shorts, tank tops etc.)
- A hard hat and sturdy shoes or boots.



The Well Equipped Flagger

- **A “Stop / Slow” sign (C-28A & B)**
- **Full advance warning sign layout**
- **Channelizing Devices such as cones**
- **Area lighting for night flagging**
- **Communication method such as line of sight or 2-way radio**
- **Water**



Work Zone Layouts and Signing Flagger Station Location



A Typical Work Zone Layout

- **ADVANCE WARNING AREA**
- **TRANSITION**
- **ACTIVE AREA**
 - **Buffer Space**
 - **Work Area**
 - **Traffic Space**
- **TERMINATION / OPPOSING TRAFFIC WARNING AREA**

**Advanced
Warning
Area**

**Termination
Area**

**Downstream
Taper**

**Work
Space**

**Activity
Area**

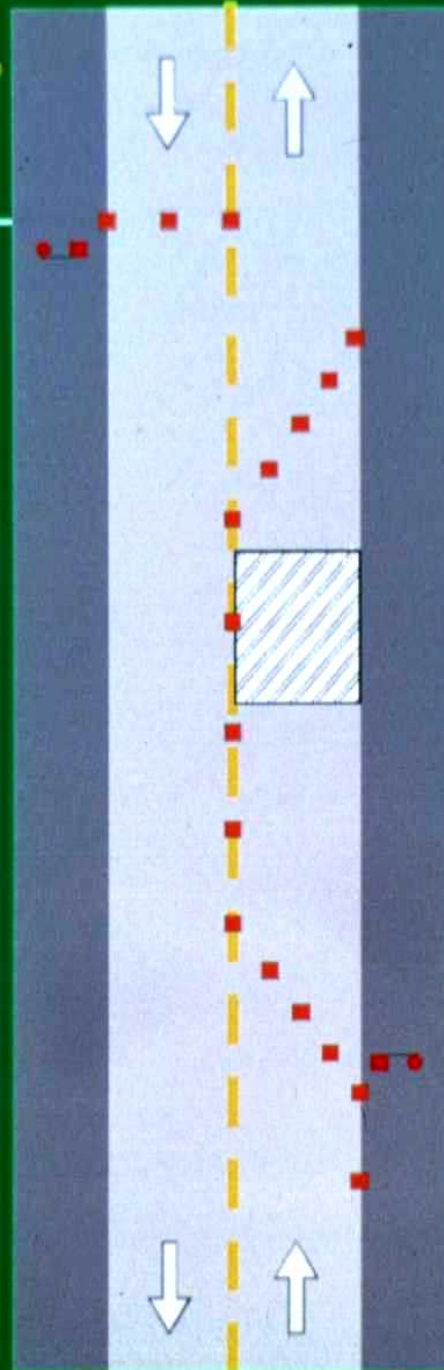
**Buffer
Space**

**Transition
Area**

**Advance
Warning
Area**

LEGEND

- Flagger
- Cone
- Advanced
Warning
Sign





Advance Warning Signs



Road Work Ahead

C18 or C23



- **The first Advanced Warning Sign.**
- **On high speed roads place this sign 900m (about 3000 ft.) before the flagger's station.**
- **Equip the sign with flags during the day, and a flashing beacon at night.**

Flagger Ahead

C9A



- **The second Advanced Warning Sign.**
- **On high speed roads place this sign 600m (about 2000 ft.) before the flagger's station.**
- **Equip the sign with flags during the day.**

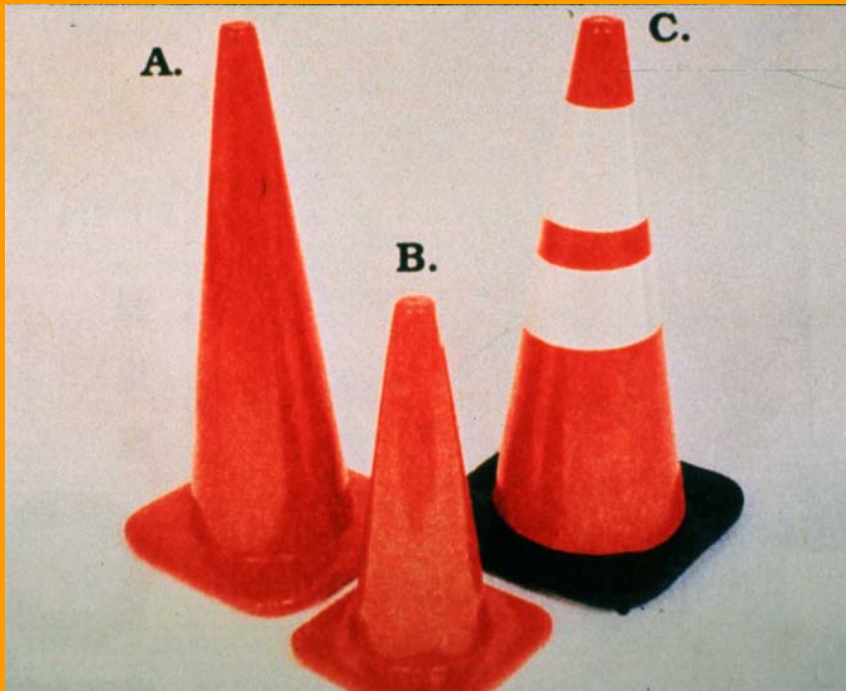
Prepare to Stop

C36



- **The final Advanced Warning Sign.**
- **On high speed roads place this sign 300m (about 1000 ft.) before the flagger's station.**
- **Equip the sign with flags during the day.**

Cones






- **Place a minimum of 4 cones along the edge of the lane before the flaggers station.**
- **Space the cones out 50 feet (15 m) apart.**
- **Equip the cones with reflective sleeves at night**
- **Place a cone next to each Advance Warning Sign.**

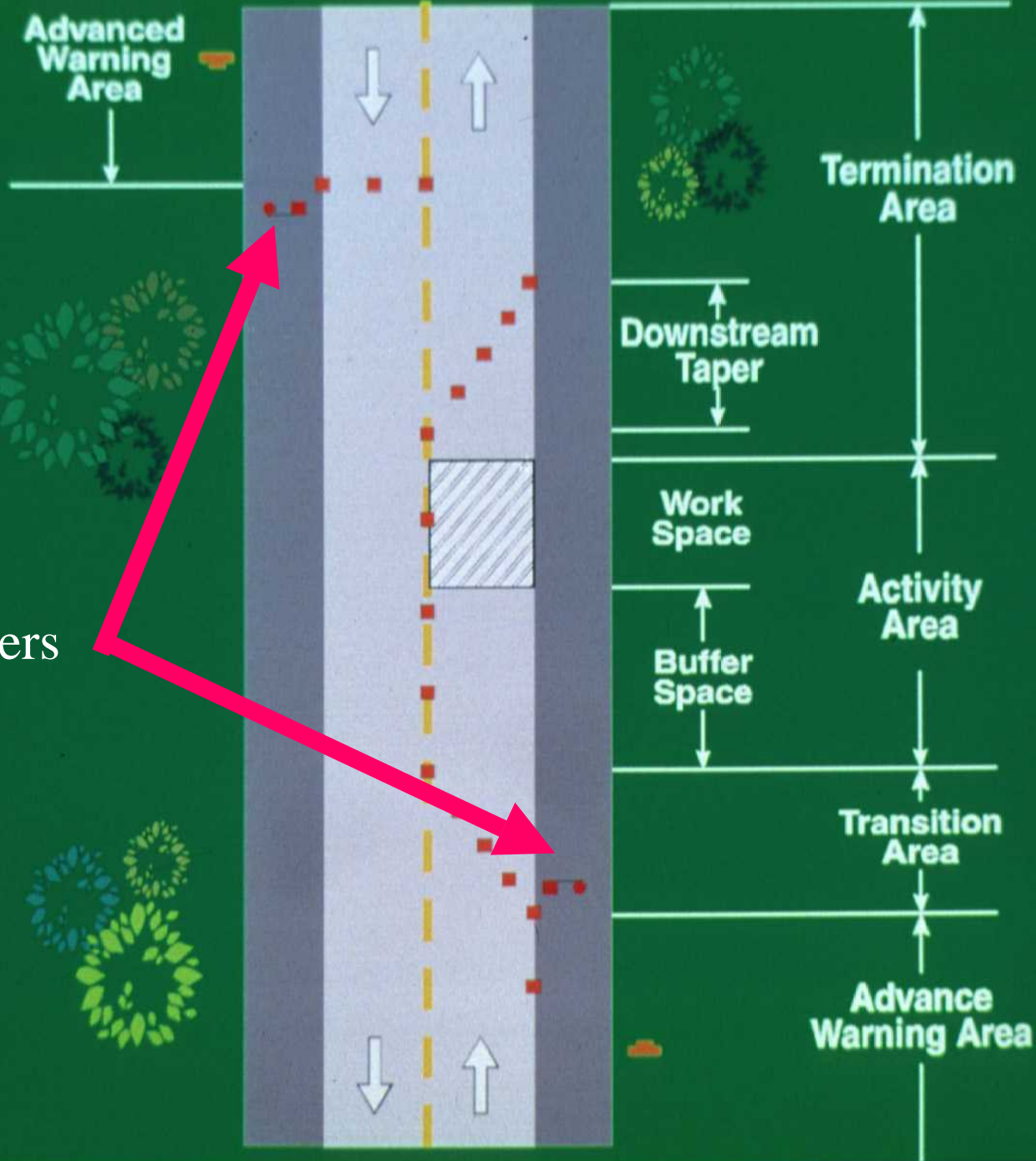


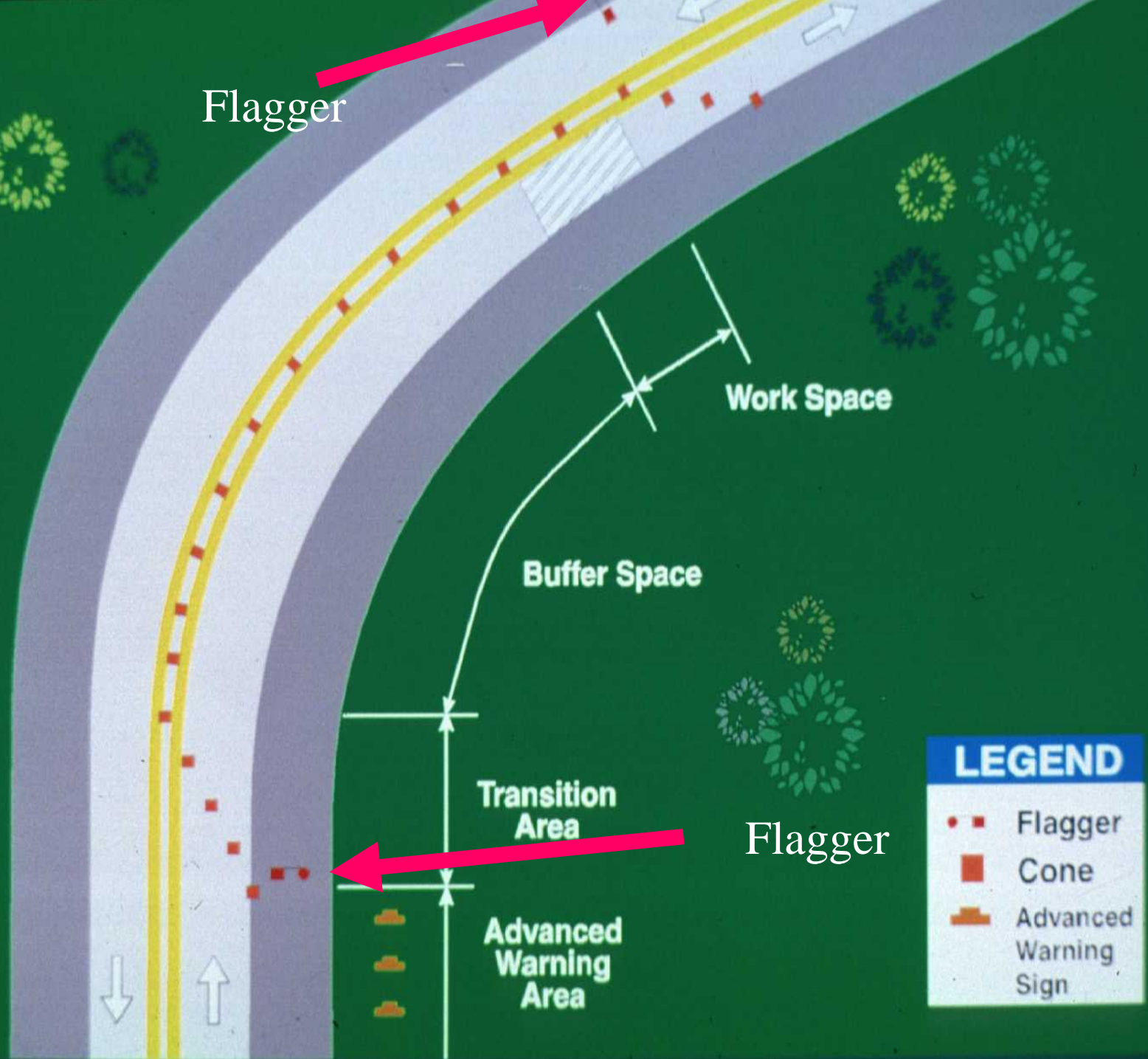
The Flagger's Station

- **Visible to approaching motorists**
- **Has an escape route**
- **Lighting**
 - **Daytime - not in deep shadow**
 - **Nighttime - has area lighting**
- **Not hidden by the background**

Flaggers

LEGEND	
	Flagger
	Cone
	Advanced Warning Sign







Setting-up the Flagger's Station

- Set the advance warning signs for traffic on the opposite side of the road from the protected operation.
- Set the advance signs serving the traffic that is on the same side of the road as the operation that is being protected.



- Flaggers take their stations
- Never start flagging until all signs and flaggers are in position.



Some **DOs** and **DON'Ts**

- Never start flagging operations until all signs and flaggers are in position.
- Remove or fold down the advance signs when the flaggers are not working.
- If it becomes necessary to slow traffic on a freeway, **ALWAYS** work from the closed lane or the shoulder, never from a live traffic lane.



Standard Signals Used by Flaggers



Standard Signals for Guiding the Driver

- *Stop*

- *Slow*

- *Go*



Objective

- **To tell the driver what actions to take**
- **To be understood by the driver**
- **To take the guess work out of the communication by using standard hand and paddle signals**

Standard Signals



- **What should the Driver do in this case?**
- **Is the message to the driver clear?**



California
No Longer
Uses Flags
to signal
traffic



**You Must be
Understood**

**Your job is
*traffic
control!***



STOP

SIGN = STOP

**Gesture - Face Traffic
with arm outstretched
and palm towards
traffic.**

**Position - Stand on
the Shoulder until the
first car is stopped,
then move to the
center of the road.**

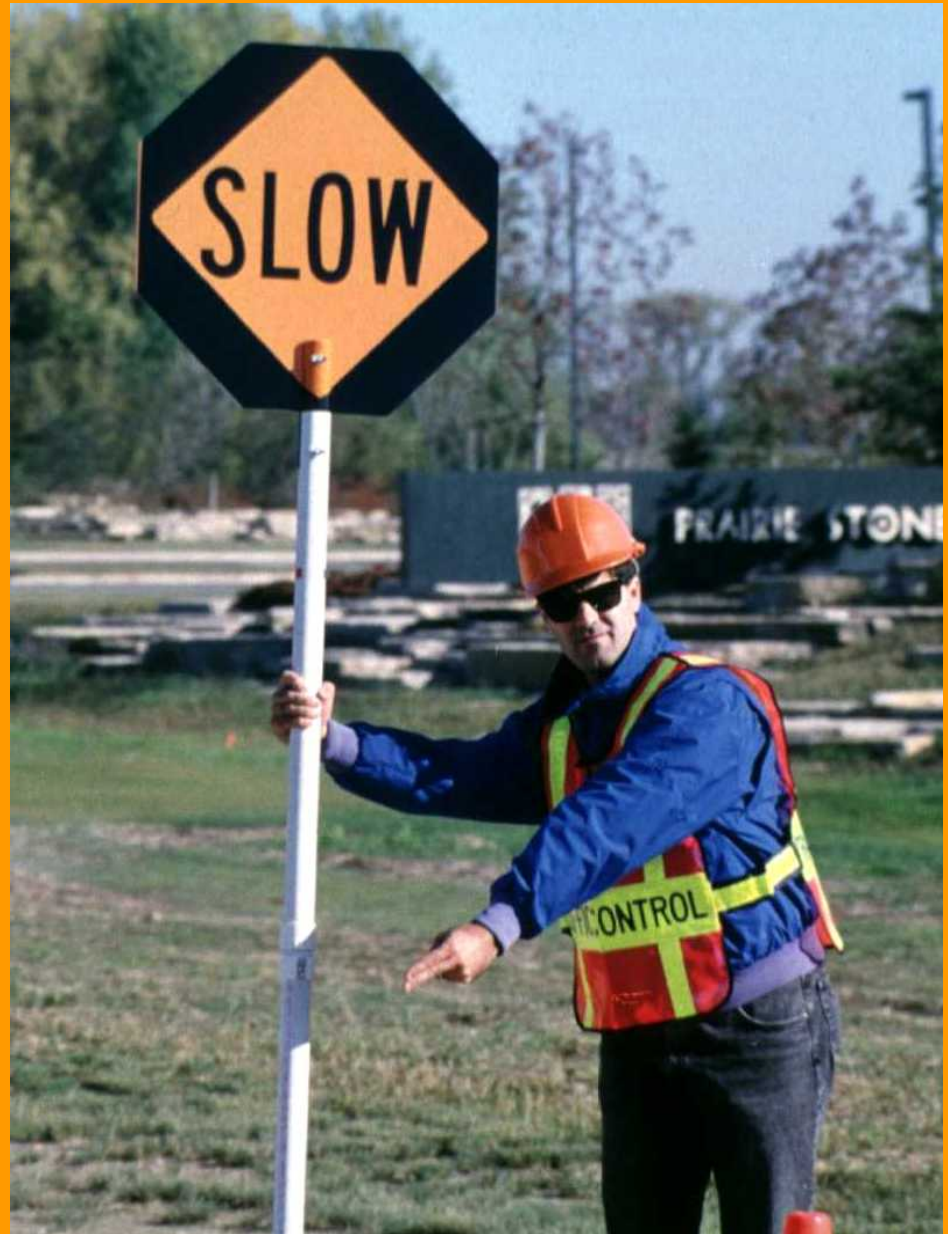


GO

SIGN = SLOW

Gesture - Facing traffic move arm in sweeping gesture, end sweep by pointing to the lane traffic is to use

Position - Stand in lane when traffic to use left lane & on shoulder when traffic to use the right lane



SLOW

SIGN = SLOW

Gesture - Facing traffic with arm outstretched and palm down, move arm and hand up and down in pumping motion.

Position - Stand on shoulder facing traffic





One-Way Traffic Control

Working with 2 Flaggers



Control Methods

- **Flagger control**
- **Pilot car**
- **Official car**



Flagger Control

- **Vocal Communication**
- **Hand signals**
- **Radio Communication**



Pilot Car

- **All traffic waits for the pilot car.**
- **Provides guidance and speed control.**
- **In long systems sometimes 2 pilot cars can be used.**
- **Pilot cars require special signs & radios**



Official Car

- **This is a special car that brings up the end of the line.**
- **Very helpful when haul trucks have to be taken out of the closure along with traffic. (Haul truck gets into line in front of the official car.)**



Baton Carrying Car

- **Use a flag or baton that is easy for the motorist to take and give.**
- **Give the baton to the last car to be allowed to pass.**
- **Beware of pranksters - people who discard or keep the baton.**



The Flagging Process

- **Flagging with 2 Flaggers**
 - **Traffic driving on the LEFT side of the road**
 - **Traffic driving on the RIGHT side of the road**
- **Flagging by Yourself**



Additional Flaggers

- **Working on the through road**
 - Warn Drivers of slow or stopped traffic ahead.
 - Needed when there is limited visibility or long lines of waiting traffic.
- **Working on side roads and streets.**
 - Coordinates entering traffic with the movements of the pilot car.



Flagging With 2 Flaggers

**Controlled Traffic has to drive on
the wrong side of the road.**

The Lead Flagger

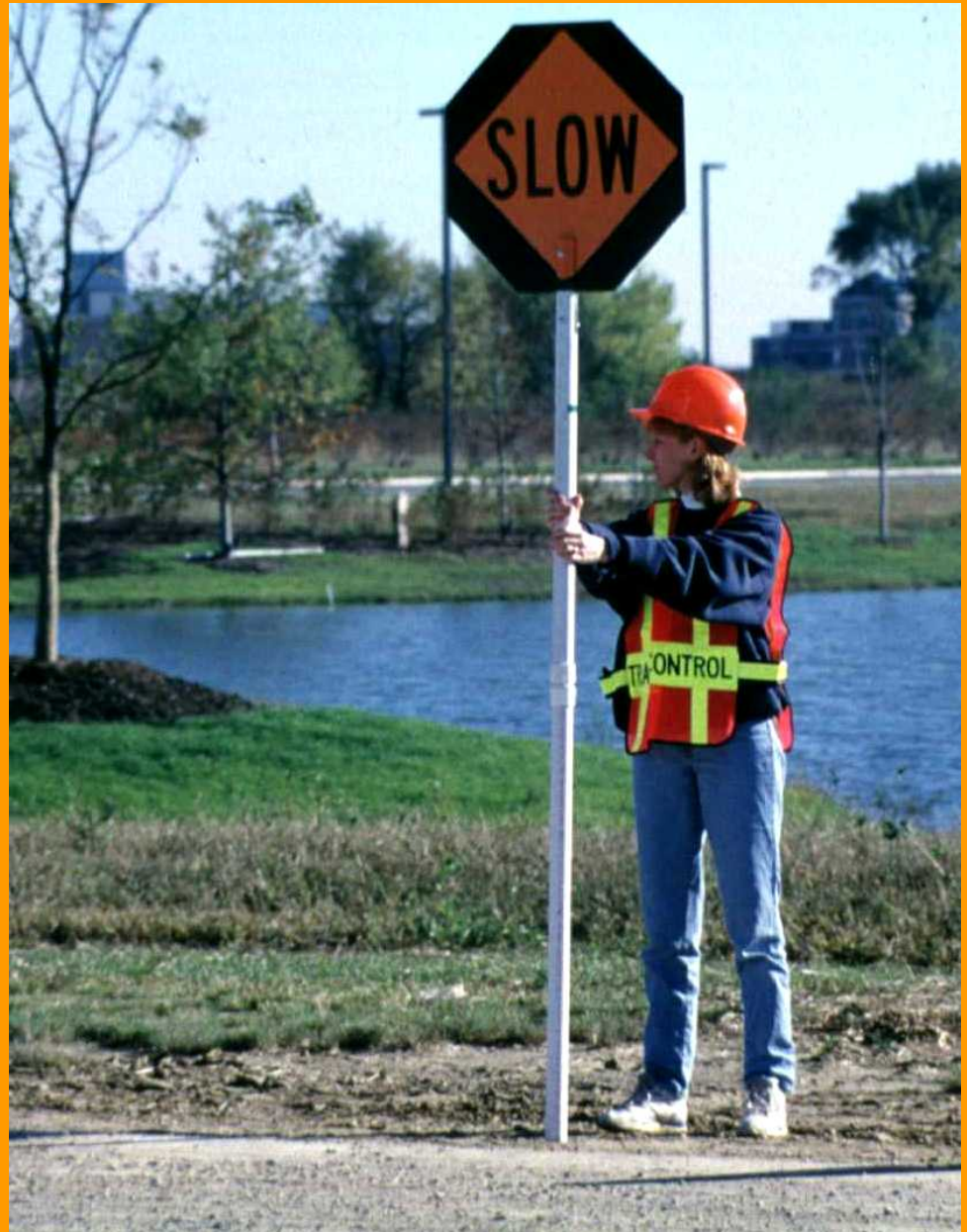
- There must be a Lead Flagger”
- The job of the “Lead Flagger” is to prevent conflicts.
- The “Lead Flagger” coordinates the work.



Flagging With 2 Flaggers

**Traffic on the left or
“wrong” side of the
road**

**Clear the last vehicle
safely into the
controlled area.**



**Turn the sign to
read “STOP”**

**Move to the
right shoulder**



**Signal approaching
traffic to stop.**

and

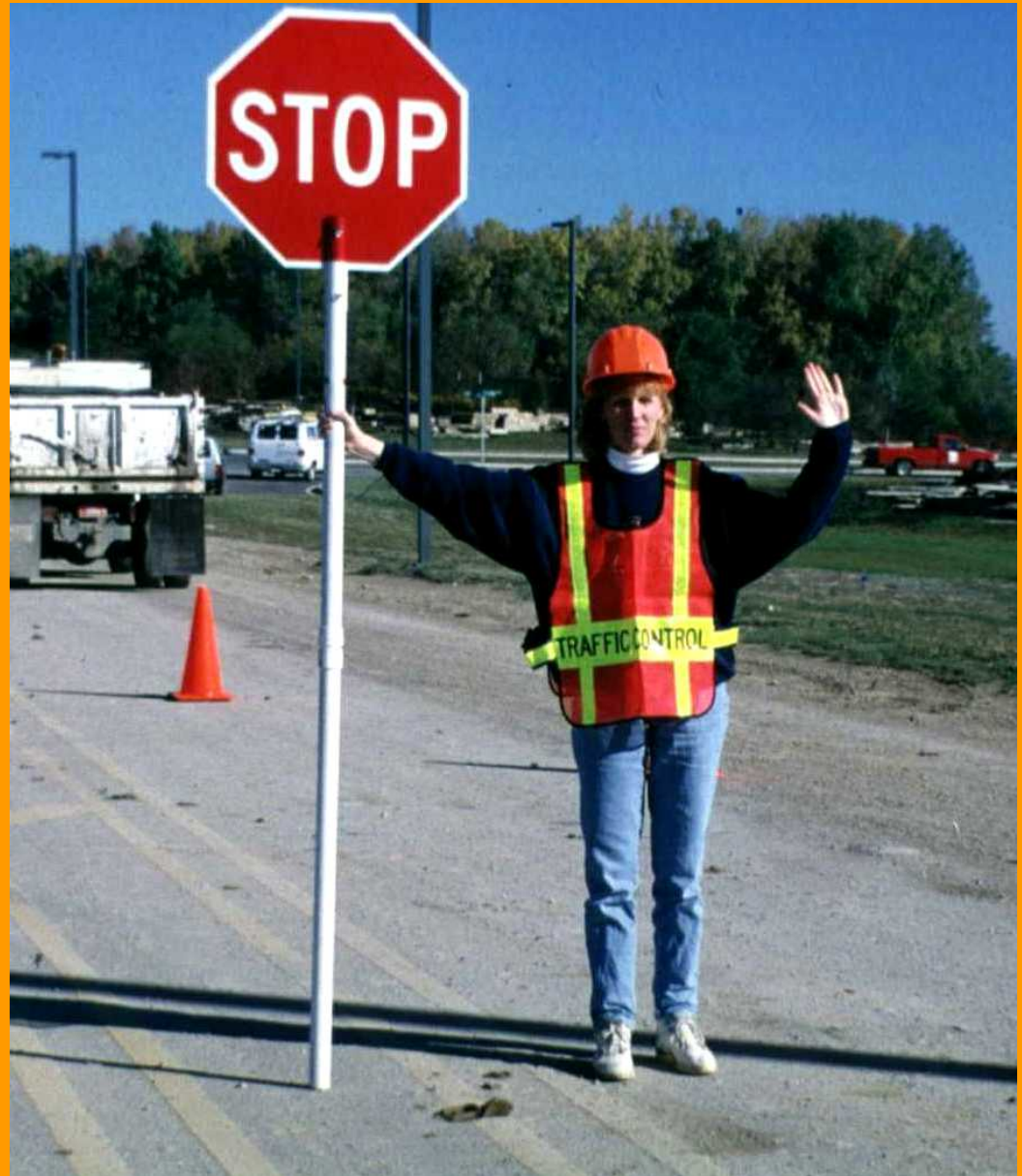
**Bring lead vehicle
up to your station
if possible**



**Take a new
position near
the center of
the road.**

because

**The vehicles
approaching the
queue need to be
able to see you.**





Wait for the “All Clear” from the other flagger before releasing your queue.



**Check and be sure that the lane
is clear before releasing traffic.**

**Turn the sign to
read “SLOW”.**

and

**Signal the lead
driver to proceed
using the left side
of the road.**



**Direct the other
vehicles in the line
to drive on the left
side of the road.**

And

**Signal the drivers
to SLOW if
necessary**





Flagging With 2 Flaggers

Traffic has to drive on the right
hand side of the road.



**Place 3 Cones across the lane where
you want to close it to traffic.**



Stop the first vehicle while standing near the right hand shoulder.

THEN

Take a new position near the center of the road.



Check carefully before releasing traffic.



Remove the cone from the middle of the lane just before letting traffic pass.



**Turn the sign
to read
“SLOW”.**



**Motion the lead vehicle
to proceed straight
ahead on the right
hand side of the road.**



**Signal traffic to
slow down
whenever needed.**

Repeat

**As often as needed
until all vehicles in
the queue have
gone through.**



Turn the sign to “Stop”

Replace the cone in the middle of the lane

Stand near the shoulder until next vehicle approaches.



**After vehicle stops
take a position visible
to approaching traffic
near the center of
the road.**



Single Flagging Operations



Use 2 flaggers if there is more than a few vehicles each hour.



Stand in a place that is away from the work and other workers.

Stand where you can be easily seen by drivers



Flagger



LEGEND

- Flagger
- Cone
- Advanced Warning Sign

Advanced
Warning
Area

Work
Space

Buffer
Space

Transiton
Area

Advance
Warning Area



**Be sure that you are visible to traffic
coming from both directions**



**Slow and/or stop the traffic
passing through the work zone.**



**Make eye contact with the drivers
when giving direction to drivers.**



The Flagging Process

Emergency Procedures

- **Emergency and Special Vehicles**
- **Emergency Situations and Operations**
- **Hostile drivers**



Emergency Vehicles and Special Vehicles



Emergency Vehicles get the Right-of-Way

Basic Procedure

- **STOP** unexpected emergency vehicles
- **CLEAR** the operation off of the traveled way if possible.
- **STOP** both the traffic and the haul trucks.
- **HOLD** all traffic until the emergency vehicle has passed.



Police

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Fire

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Emergency Medical Services

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School Buses



Plan Ahead

- **Contact local emergency services. (CHP, Fire Departments in advance)**
- **Know, before you hear the siren, that an emergency vehicle is approaching.**
- **Be able to tell the crew what is coming.**
- **Special planning may be required when traffic is led by a pilot car or the closure is very long.**



Handling Emergency Situations

- Violations of the Traffic Control
- Crashes and Accidents
 - In the line of vehicles waiting to move.
 - Inside the work zone itself



Violations

- PROTECT YOURSELF
- ASAP - Warn the crew that a driver has run the flagger's station !
- Try to prevent more vehicles from entering the work zone.
- If possible get the license number and a description of the vehicle.
- Plan for this before it happens



Crashes



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Crashes



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Crashes and Accidents

- **In the line of waiting traffic**
 - Notify - Call for help
 - Continue to control traffic.
 - Stay coordinated with the lead flagger
 - Stay at your station until instructed to move by your supervisor or the police.
- **Plan for this before it happens**



Work Zone Accidents



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Crashes and Accidents

- **Inside the work zone itself**
 - **Hold** the line of waiting traffic
 - **Stay Coordinated** with the lead flagger
 - **Follow the instructions of your supervisor.**
- **Plan for this before it happens**



Hostile Drivers

- **Be in command and Control at all times.**
- Be courteous but firm.
- Do not get into an argument.
- Keep a safe distance



Belligerent Drivers

- Walk away from any driver who becomes belligerent.
- Get the vehicle's license number and a description of the driver.
- Notify your supervisor of the incident as soon as possible.
- If the driver enters the work zone warn the crew - This is an emergency!



Emergency Flagging Operations

**This is the only time flags are
permitted.**



STOP



**FLAG - held still
at shoulder
height**

**HAND SIGNAL -
Arm outstretched
and palm faced
to traffic**



GO

**FLAG - Down
and at the
flaggers side**

**HAND SIGNAL -
Point to the path
the motorist is to
take.**





S L O W

FLAG - Move flag slowly up and down between knee and shoulder high

HAND SIGNAL - Arm and hand in a pumping motion with the palm down